



1/20

-6660 TCTAGAATAT AGAAGATAAG TTTGCGTACA ATTCAGTCCT TTGAAGACCT
GATAAGCTTT AAGAAGGAAG ATGGGTTACA CATTGGGAAA TGGTTGCAAT
CTGCACATGG CAGAGGCAAG AGATGCAAAT CACATTTCTT ACATACTCCA
-6510 TACAAATCTT ACAAGACTGT TTTTCTTTCT CATTTAAAAT AAGAAGACCT
GCCAGTCTTC CCCTTATTAC TAATTACAGT CACTCTGTAT CTTTGTGAC
ATTGGATAGT TTTACATACT TCAACAGGCT GGTGTCATTA AAGTTGTGGT
GGGTGGGCAC CAGAGACACG TGATTACAGAG TGGGAGGAGA TGCAGGAGAA
ACGAGGCACA GCAGAAGCAG AAGCGAGGAA AAACACTCTC AACGTTACTA
ACACATCGAG AGGTTCCGCA CACTAGCAAT ACGGGCTGAA TCTGACCTAA
TCTCTGCTGT TGAAAATTTT GCCTAGCCGC AACTAGCAA TACGGGCTGA
ATCTGACCTA ATCTCTGCTG TTGAAAATTT TGCCTAGCCT GTCACACAAG
TGCTGAGCAT ACAGAAAAAG GAGAGTAATT CTCTGGTTCT TTGACTAACC
AAATAGTCTA TATCAAATTG CCTAAGATAA TGTATACATT TAGTACATGA
-6010 CTGGTTATAC CTATTCTATA TGACTATTAT TTAAATGTGA ATTTACAAGT
GAGCATATGA AGTCCATTTT ACATGGCTAG TACATATAAC TTTTAAAAAG
TTGGACATAG TTATATTTTT CCATTTATTT ATTTACTTTA TATCCTGATC
ACAGACCCCC CCTCCTCTG GATTAACCTT CTCCACTGCT TCTTACCCCT
CCCCATCTCT CCTCACCTC TGAGAAGGGG GGATACCTCC TGTCTTATCT
GGTTTCAGTG GGAGAAGGAT GTATCCTAAC ACATATAATT TTTAATATCC
TGAGTTTTTC TTTCATACAC CTTACTTATT CTATTCATTT TTCAGGAAGG
CATGTTTAAT GTTTTTTTTT TAATTTTATG TGTACGAGTG TTTTGCCTAC
ACAGTCATAG TGCATCGCAT ACATTTTTCG TGCCCGTAGA GATCAGAAGG
GAGCATTGGG TTCCTTAGGA CTGGAGGCAT GAACCACCTT GTGGGTGCAG
AGAACTGAGC CTGGGTCATC TCAAAGCATC AGGTTCTTCT TGAGTCATCT
CACTTGCCAC TTCTCCCATT TACTGATTTT ATCTGTGTGC AGACATTCAT
GGCCCAGTCC ACAGGTGGAA GTCAGGGACA ACCTATAGGA GTCAGTCCTC
TCCTTCTACC GTGTGAGTCC CTGGCCTCAA ACTCAGGTTG TCGGGCTTCA

FIG. 1-1

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TAGCAAGAGC TTCTATTGTG TGAGCCATCT TGCTAGCCCC ACCCCATACT
ATCTTTATAA TATCTGTTTA ATTAAGACAT TCATAATGAA TTTTATTAAC
ATTCATCGTT ATCCCCTTTA CCAATTTTAC TATGTATTAA TTGCCACCCC
TTTAAATTTA ATTACTTCCT TGGCTGGGTT ~~TT~~FACAGGAGA GTTCCAGGAA
GCTAGATGGA GAGATGGCTC AACAGTTTAG AGCAACGGCT GTTCTTGCAG
AGGACCTAGG TTCAAGTCCT GGCACTCAGA ~~GG~~TGGCTCAC AATCATCTGT
-5010 GACTTCAGTT CCAGGGGATC TGAAGAATTC ~~TT~~CTGGGCTC CATGGGCATC
AACTACACAC TTGGTTCATA GACATACATG CCAGCAAATG ATTGATCCAT
ACATATGAAA TAAACCATAA ACAGAAAAAA ~~AAA~~AAGGAAGG TGAGGGAAGG
AAAAAAAGTT TAAAAAAGG AAAGGAAGGA AGGAAGGGAN NNNNNNNNNN
NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN ~~NN~~NTCTCTC CATACTGAAA
GATGTCCACA ATGACTAAGG GAATTTTTTT ~~TAAA~~AAGACAA GCACAACGTT
TTCTAGGGAT CAAACTCTAT TTGTGAGGAA ~~GACT~~GGTGGT TTGAAGATTA
CATAGCAGAG TTACATCTAA CATGAGCGTG ~~TT~~TCCCCTGG ATGGAAGGAG
TCTGATAACT TGTCTTTCTT TCTTAGTTAG ~~CAT~~CTCAGAG TCCCCGCTC
CCCTTAACAT CCTTTTGTCA CACCATCTTT ~~TT~~AGGAAAAT GGATCATTTA
TGGGGATGTA GTGATTGTGA CAAGAATGTC ~~CC~~CTGTGGGC TCAGATATTT
GAATACTTAG TTCCCAGTTG GGGGAGCTTT ~~TG~~TAGGGAGG TTGGGAGGCA
CAGCCTGGCA GGAGGAAGCA TGCTAGCAGC ~~TT~~TGAGACTA TAAACCCTCA
TCTACTACCT TGTCTCTTT CTGCATTGTG ~~CT~~GTGTCTGA CACTGTGAGA
TTCTTGCTCC CGATGCCATG CCTGCCCCGC ~~AT~~GATAGACT CCTAGCCCTC
TGGAAGGTA ACCTCAGTGA ACTCTCTTCT ~~ATA~~AGTTTCT TTGCTCCTGG

HindIII (-4200)

TGTTTTATCA CTGAAACGGA AAAGCTTGCA GGGAGGTAGG AGGCAGCCTG

FIG. 1-2

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BstEII (-4100)

TGGCGTTGAT TCAATGCACC TGGCCTTATC CTCGGATGAG ATCGGTCACC
AGTCAAAAC TGTGAGCTTG AAGGTCTTGG GTGCTTAACA TCTATTTTAA
CAAATCTTAT TTAGCAACTT AGAACTGTGA AATATTGGAA AGCTACTTAA
-4010 ACCTTCTAAA CTCCCTCCTC CACACTATGA GAATGTTACA TTTTCTATTC
AGTTATTTTT GAGCAGTAAA CAGATGAATC AAGGAATATG CCCATCACAT
CAAGAGTGCT CCTAAATGGA CTTGCTTGTT ATTCATTTAC AGTGTGGCCC
CTTGACTTTC ATCGGCACTC CTAGCAGAAA ACAAATCCG CCAGATGGAG
CTGGAGAGAT GGCTCAGCTG TTAAGAATAC TTATCCCTAC ACAGGCCCTG
GAGCCAGTTC CCAGCACCCA CACGGTGGCT CACAACCATC TGTAACTCCA
GTTCTAGGAG ACCCGACTCC CTCTTCTGTC TGAAAACACC AGGCACGCGT
GCGGTCTACA TACAAACATG AAAGCAAAAT ACACACATTA CATAAATAAA
TCTTAAAAAA TGATTCGGGG TGGGGGAAGG AAAAAAAGG ATGTTAGAAA
ATCGATGTAA CTGTTTTTTC CTTTTCACAC GATCTAAGTT AGGGAAGGAG
AACATTCTCT TACCATCGAA AATAATTGTT TTCATTGCCC CCAAGTCTGC
TAATAGAGCT TGCTACCTTC ATGGCTGTCT TAAGGATGAG GCAAAGATGG
ACTTCAGCTT TCAGACTGTG TCTGCTCAA TGTTGGCTAC TCCTGTTTTT
TGACCCCTT CTCTGGTGCA ATGTGGACTT TCAATTAATT TCCCTGCATC
TTTTACATAT TTGATTTAAA AAATATTTTA TTTTATGTAA TTGTATGTAT
ATGCATGTCA ATAAGCATAT GTGTGTGTGT TTCCATGGAA ACCAAGGCAA
CAGATTTTCC AGAGCTGTAG AAATGGGCTG TGAGACGCCC ACTGTGGGTG
TTCGGAACCA AACTCGGGTC CTGTGGAAAG ACAGCGAGCA CCCATAATGC
AGAGGTATCT CTCAGATTTT ACTTTAAAAT TTCAATTTTC TTTTTTTTTT
TTAAAGTTCC AAGTAACTAT AGGAAAGTAC ATGGGTATAT AGATCCCCAG
-3010 TACCAAGATT CTCCTTTGC AGGTAGCACA ACTTGGTTTG TTTACATAA
AGAATGGAAA GTCATTAAAA CACTCATCAC ACTGTAAAGT AGAATTGAAC
TCTGACAGAA CAAGCGAAGT GAGTCTGACT TCCAGGTAAC TGAGCCTTCT

FIG. 1-3

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TTTCCTCCTA AAGACACAAG CCATACACAG AGTAAAATAA ACTTGGGCAT
GGTGAGAAGG AAACAACGCA GGAGGGCTAG CCAAGTCTGA GAGTCGTGAG
TGTGCTCGGT TTATAACGG AGCCACCTT GCCAGCGAGG TAGTCACATG
CTCTGCTAAA CAGAACTTA AGAAAACACT TACACGAAGC AAACATGGGG
AAGTGCCATG CAAGCATGTG ACTGACTGGT GGCAATGACC GAAACCACAG
CAGCCACTAG AAAAGGAAGG GTAGTGCGCC AACTGTAGT TGTGAAAATG
AACTTATCA TTTATTTTGA AAAACGTGTA AGAAGCAAAG ATGTCTTCTT
TCCCACCTAC CTTTGCGGCA GCGAGCACT TCCTGGAATT TATAAAGTGC
GATCTTTCTG GGGACTTCTC ATAACATTTC CTACTGCTCA TCTATGTCTG
TGTCAAATAG AGAATGCTCT TGAACAAGTG TGTGTGTGTG TGTGTGTGCG.
CGCGCACGCG CACTCACTCC TGCTCTGTTG AGGTCCAGTT TTGATGGTCC
CGCCAGAGGT ATATTTGAGT ATCATTCTC AAGAGCTTCA GCTGGGAGAC
ACTGCCTCTT ACTGGCCTGA AGGTCCTAG CTGATTCATC TCCGTTTGGG
CTGGCGCGCC TTGGGGATCC TCCTATCTCT CCTTCCCCAG TGCTGGGATA
ACAAGGTTGG CACCACATGA GCCTTTTAAA ATGTGAGTTT GGAAGCTCAA
ACGCAGGTTT TCATGCTTGC ACTGAACTT CACAAGCTGA ACCGTCTCCC
TCTCCTTCCC TCTCTTTTTT CCTTTTCTTC TTCCTTTTAA AAACACATCT
-2010 TGTCTTTAAA AAAAAAAAAA GGCCCAAAC AAGTGTAAG TATTTCCCTA
TGTGTGTGGA GGGAGGGAGT ATAGGAGGCT GATTTCCTAG AGATCCTGTT
AAATTTGGGT GCCATAGCCA ATCAAAGACG CATCGTTTCC TCTAAGAATT
CTAAATGGGG CGATTACCAC GGGCCTGCAG GTTCTGGTTT GTATTAGAGG
AGACACTGTC TTCTTAAGTA AAACATAGAA GGGGAAGTGT CCAGAATTGT
AAATAAGGCT TCGAGAGAAG CCTTGTCTGG CCACCGGGAT GGAGAAGACC
TACCTTCGCC TATCCAGGAT CCATCGTCCC TCCCTCTACC CAGATCTGAC
AGCCCTCCTT GGCTCTTTTG CTGAGGTTTG TTTGAGTTTG TTTTACTCTC
TGCAAGAGAA GTTTCCTTAA ACATTCTACC CTGTTACAA GTAAATACAC
CTCTTAGCTA AGAGGCCACA CACCAGGGG GAACACCGAT AAAAAGAACA

FIG. 1-4

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AGCCAGAACC TTCA~~GA~~ACGC TGTCGATAGG TACACCAAGC AGCCTTCATA
CGGAGTTTTC ATTC~~G~~TGAGG AGCTGAATAT ACAACAAAGC TAAATGTGAG
CAGACCAGGC ATGC~~CT~~TGTC TAAATGAGGA TGCCACACACC AACATGCCC
AAGATCTTCA AGTA~~TA~~AATTT TATTATATAG ATTCGCTATG TGTGACATG
TTTTTATAGT GAAC~~CT~~TGGAT TTTACAAACC CTCCTGGTTT GCCACCTGCT
TCTGGCACCA TACT~~TA~~GAGGC TTAGGCACGT GATAAAGGAG CATGCCTGTT
TCCCCCCTTA TTTT~~TT~~TTTAA AGAAAAGCAC CATGTTACAT CATTAATCAT
GCATATCAGT GTAG~~TT~~TTAGA TCCGATGTAG AGACAATAAT CTTATCTCTT
TGCTCGGCTG AAAG~~ACT~~GTGTC CTTTAAACTA TCATTCTAAA TGCATTGTGT
TTTGTCCAGG AGTA~~AA~~AACAT GTCACAAGAT ATTTGTTGTC ATTTCCCAGG,
-1010 CGTGAAGGA AAGGA~~AT~~TGGA AAGAAAACCA GGGGTGAAGG CTGCTGTTCC
TCTCTAGTCG CTACT~~T~~TGAAG TCTACATAGC TGGGGGGGGG GGGGGGACTG
TTCACATGGG ACCG~~GT~~TTTCC TCTTTGTTCC TACTGTCGCG CCTCTGGCAA
AAAACCTCTCC CTTCT~~CT~~TTCC CCCCAAGCAT ATCTTGGCTG AAAGGTCAGC
TCTGAAAAGG GGCCT~~GG~~CCA AAGTTACTGT AGGGGACCGT GGTGATGGAA
CTGGGTAAAC AAAAG~~CA~~CTC TAGCAGCCAC TGGAAAAGGA CCGGGGGCTC
TTCTCTGTGC ATTTG~~CC~~CTG GAACCTGAC CACCGCCAGC TCCCTGCATC
TCCTTGCTAT GGGT~~TT~~TTCTG GACCGACCCA GCCAGGAAGT TCACAACCGA
AATGTCTTCT AGGG~~CT~~TAATC AGGTAACTTC GGACGATTTA AAGTTGCCAG
ATGGACGAGA AAACA~~GT~~AGA GGCCTTGGCA ACCTGGATAA GCGCCTATCT
-510 TCTAATTAAA ACATT~~C~~AGAC GGGGCGGGG ATGCGGTGGC CAAAGCACCA
TAAACAAAA CTTCC~~A~~AGTA CTGACCAACT CACTGCAAGT TTGTGCCCCG
AGTACATCTA GGTTC~~A~~GGGG TTCTGTCTT CATGCTCCCA ACTGCGGGCG
GATTTTGGT CCCTT~~G~~GGAC TTTCAGTGCA GCGGCGAAGA GAGTTCTGCA
CTTGCAGGCT CCTAA~~T~~GAGG GCGCAGTGGG CCTCGTGTTC CTGGTGATGC
TTCCAGGTT GCTGGG~~GG~~CA GCAAGTGTCT CAGAGCCCAT TACTGGCTAC
ATTTTACTTC CACCAG~~AA~~AC CGAGCTGCGT CCAGATTGTC TCTCAGATGC

FIG. 1-5

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GA CT TGCCGC CCGGCACAGT TCCGGGGTAG TGGGGGAGTG GGCCTGGGAA
ACCGGGAAAC CCAAACCTGG TATCCAGTGG GGGGCGTGGC CGGACGCAGG
GAGTCCCCAC CCCTCCCGGT AATGACCCCG CCCCATTCTG CTAGTGTGTA
+1 (transcription start)
-10 GCCGGCGCTC TCTTTCTGCC CTGAGTCCTC AGGACCCCAA GAGAGTAAGC
TGTGTTTCCT TAGATCGCGC GGACCGCTAC CCGGCAGGAC TGAAAGCCCA
GACTGTGTCC CGCAGCCGGG ATAACCTGGC TGACCCGATT CCGCGGACAC
CGCTGCAGCC GCGGCTGGAG CCAGGGCGCC GGTGCCCCGC GCTCTCCCCG
GTCTTGCCTG GCGGGGGCGC ATACCGCCTC TGTGACTTCT TTGCGGGCCA
VRE
GGGACGGAGA AGGAGTCTGT GCCTGAGAAC TGGGCTCTGT GCCCAGCGCG
AGGTGCAGGA TGGAGAGCAA GGCGCTGCTA GCTGTCGCTC TGTGGTTCTG
CGTGGAGACC CGAGCCGCCT CTGTGGGTAA GAAGCCCACT CTTTAGTAGT
AAGGCGGAGA AGTAGGGTGC GGGCGGAGAG TGGGAATAGA AGAGGACCTA
ACTCGTAGAG CTCTAGAGAC CCTCCTCCCT TGGGTGTTCT TTCATTACC
+490 AATGGGGAAA CTGAGGTTCA AAGACTCTTC CGAAATGACT CAGCCAGGAT
TCTACTCTCC CCCGGGCATC GGTTGGAGCG TGTCTGCGG AGCCGTCACA
GCCCCTGGCG CTAGGTAGGC AGGAGTGGAA AGGCGGCCTG AGCCGGGGCA
GGAGATGCTC CCACTGGCAG GAACAGGCGG TCAAACGCTG GGAAGCCAGC
TCAAGCCAAG CGGCCCGGCT GGCATCAATC ACTCGGTGCT GTTGCCCACT
GCCCTAGTGG GGGGCAGGGA ATCCGCCTCT GGCTCCGCTC CCCTTTAGCT
CCAGCGTGTA AGCGCACGGA CTATGTGAGG GTAGGTCTCT TCATAGAGCA
ACACTTTCCT CCTCAACTT TCTTTGATGC AGAATGCTAT TTTTGCTGGT
AGGAGGAAGA CGCGGCTTTC TCTTCTGTGA CAGCTTCTCC AGGTGTATTA
AACTAAATAA CTCTCCACTT ACCGACTCCA AAGCGCTGGT CCTGGGGTAA
+990 ACTCTGAAAG TCTCAGAAAC TCTTGAGCTT GGCACCTAGT TATAGGTCAC
TTTCTTGTT TTAATATGCC CTCTGCTTCA AGGTAGGCC CACACTCGCT

FIG. 1-6

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CTTGGGCTTT TGTGCAATAA TTTCCCTTCC CTTCCCTTCC CTTCCCTTCC
 CTTCCCTTCC CTTCCCTTCC CTTCCCTTCC CTTCCCTTCC CTTCCCTTCC
 TTCCTCCTCC TCTTCCTCCT CTATTTCTCT GTCATTTTCT TTTTGAAGCC
 ACAGTTTGCA GATTTC CAAT CTCCACCCAT TGGAGAATGG AGAATCAGGA
 AAAAAGAAGT CAATTCTGCA GAAACATTCC TTGCGCCCTA AGAGAATCGC
 ATGGCTTAAA AGCATTGGCA CTGACATACG GCGCCAAGAT CGCCTGTCTA
 GAGCTATTGA GTTTTCCTCA TAATGACTTG GTTCATCAGG CTAGCTCCAC
 CACGAGTGCC CTCTTGTTC TGAGAAGGCC GCACTCTCCC CTTTCTGGG
 AAGAGAAAGA CAGCCTGGAA CATGTGCTTG CCCTGGGTTC CATAGAGAAG
 CAAGTTGCTT TAAAGCCCAG AGAATTCCTA GTGTAGCAGC TTAACAGCGT
 CCCGTTCTCT GAATAAGATG GAGGTTGCCC TTTTGGAGTG TGTGACTTGC

XhoI (+1600)

TTAATTGGAT TGGGCTATAA TTGGTGCCAT CCAAGTCTCG AGACAGAGCC
 GCTGTTGTTT TTCCTTCTGG TCTTTGAGCG GGAAGGATAA CAGTGCACAA
 ATTAATTAAT GTTGGTTATC GGATTGTAAC ATAAAAGGGC TTTTATTGTA
 TAGTAGCATA TGTACCTCTT GCAGTCAGAA TGAGCTGTCT AAAGAACAGA
 ACCCAAACCTT GCCGATGAAA ATGAATGAGG TTTAATAAAG GCGATGGATG
 AGCATTAGTC ACTGATGTAA ATCTCCAGTT ATTGATAACC TCATTGACTG
 GATTTGATTG CAGACATGTA TTGGTATGGG GCATCCTTTA AAGATGAGCA
 +1990 TAGCCAACGT GCCTGCACTC TAAGAGAATC TATGGCTGTA TGTTATTACA
 GAGACAGTTG AGAAGCTCTT AGTGGCTCTG GCGTGTAGAT CAGCGGTAGA
 GCGCTGAGGC TCTGCGCTCG CTTCTGGCA CTGAAGAATA AAGGCCATTT
 ACTGTGGTGG TGCAGTGGGC GCAGTTTGTG ACGAGTTACT ACTACATTTT
 CCTCACACAT CTGCCTGACT AATGAGTTCA TCAGATGAGC GTATCCAGTG
 ATTGTTTGCA GGTAAATGGT TCTCAGTCAT GTTTAGAATC TACTTATCAA
 ACAAATTGTT TTCTCATTTT CTGCTTCTTC TCAAACAAAG TAAGATTCCA
 TTATTGAAAG GCTTGTTTAA GAGCATTTTA ACTGCTTGCC TATGTTAGGG

FIG. 1-7

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ACAGTGACTT ATTTTCATATT GACAAATATT ATGCCGATTA ATTGAATATG
ACTACCCAGT TCTATAGCTG TCTCAGGGCA GACCAAGAGC ATCTGTGATC
CAGTCACTTT AAATGCCATT TAAAATGCAT AATTTGTTGG TCTAGGAATA
AACACACTGT AAAGTTTAGA ATCACGGCCC AACACAAGT CTTTAACAAT
GCCAACTAGC TTCTGAGATT CATTAATGTC ATTTAATTAC CAATGTTTTA
AAAATATGTC ATTAATTACT AAATCTATAG TTGTAACAGC AACACATGTA
CATCTTATTA AGTTGGGTAT ATTCAGGGTG GCATAGCTGT AGACTATTGC
ACATCTGTGT TGGTGAGCCA GTGGAGAACT GCCTCCTGGC TGTTCCTAGA
AGGCCACAGT GTCACGGCAT TGGCTATTTG CCTTGGCTCT TTGCTAATAC
TTTATTGACA TGGCCTCATC TTCGTTACG TTTCACTTATT TGCCCAACAA
CGTCAATGCC AGCTGAGGCC TTAGGAGTCA TCTGTTCTTA GTCAGTGCGA
ATTAGAAAGC CTGGATGCCT GCCTGCTATT AATTAGTTAT TCTTCTCTTC
+2990 TGAGACAGAG TCTCACTGTG TGGCCCAGGC TAGTCTCAA CTTGCGGTCC
ATTTGTCTCA CTCATCAGAA TGCTGGGCTT CCAGGTGTGT GCACCACACT
AGGTAGCTCG CGTTTTAAGC TAAGAGCTGG AAGATCCTGA TGTCTTTTAC
CATGGTGGGC ATGTTACAGG TTAGTTGACT GAAACTAGT TATCTCGCTG
TGTAATGACC TGCAGTGGTA TGTATCTCTC AAGATGCTTT TTTGCATTTT
AATCAGTTAG GTAACAAGTT CTTAAGTCTC CAGCTTGGTA TTGGCATGAG
CTCAGAGCTT TGATTAATGA GTTGGGACCC CCTAGCTATT GCTCATTAGA
CTTACACTAT TTTTAGTTTT GCTCTGAGTT TATGAATATG CATGTATGCA
TGAACCTGGG AGATATTTTT CTTCCTCAAT TCCTTTTCCT CCATTTAAAT
GTGCTGTCTT TAGAAGCCAC TGCCCTCAGCT TCTGCAGCTC AGATACCAA
GGAAGTCTGG TACACAGCAT GATAAAAGAC AATGGGACGG GGTACAGTG
GCTCCCGTCC CTTTCAGGGG TATGGAGACG AGCTGTAGAG AGATGTCTCC
AGGGAGTTTT CATTAATCAG CAATTTAGTC AGATCTGTGC ATCCTATGCT
TTACAAGAAA TGTCAGTGGG CCTGAGATCA TCAGATGGAG GTTCATCGGG
TTCAATGTC CCGTATCCTT TTGTAAGACC TTGAAGTTGG CAACGCAGGA

FIG. 1-8

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AAACAGGAAC TCCACCCTGG TGCCGTGAAT TGCAGAGCTG TTGTGTTGGT
TTGTGACCAT CTGCCCATTCTTCTGTAT GACAGAGCTT GTGAACCTTA
ACTGGGACTG GGGCAAAGTC AATCCCACCT TTATACAATG AATTGCTGAA
GAGGCCTTTT AAAACTTGA GTGTGCATTG TTTATGGAAG GGCTTCCTA
BamHI (+3900)
TTGGATCCAA CTCTTTTCTA ATTTGTTTCT AGGTTTGCCT GGCGATTTTC
+3990 TCCATCCCC CAAGCTCAGC ACACAGAAAG ACATACTGAC AATTTTGGCA
AATACAACCC TTCAGATTAC TTGCAGGTAA GGATTCCTTT TTGAGCCAGC
TTTCCTATGT GAAAGGACTC ATTGTTTACT GAGGTCACAA CAATTTCCAC
TATTGCAGAA GTATAATAGT ATTGTTACAA TTGTTTATAA ATCATGAGAÇ,
TTCTAAGAAC CTATTTAATA ATGAAACAAT GGAAAAAGTC TTTTCAAACC
TTGTACTCT TTTGCTGAGC CGTTTTC AAC ATGCACAAAC ATATTACACA
AATATAACAT ACACAGGAAC ACACATGAAT GCATGGGATG ATGTGCCTAA
AACTAGCATG TAATTGATAT TCACAATTAT TGATAAATTA GTAAAGCAAA
GGAATTCCTT ATGAATAGAG CTAAATTTCT ATCCATGTTC AAGTCACCCA
GAATGGCTTC TGGACATTTT TTTTTTTAGC TGTTTTCTAC AAGTGAAATT
CTGCCTGTAT TAGCAATTTA ATATCTAGCC AATAATATTC CTGACCATAT
GTCCTGTTCA GACCATGACC TTCATAAECT GGCTTGATGT TCTGGGCTTC
TTCCCTCTT GCCAGCAAGA TGTCACGGTG TTGATGCTGG ATAACTGAG
AAACAGAAGT TTTTCGCAAG AAGAGGACCT TGAATTTTGC TTTTCCCCTG
AGAGACAAGA AAGGAACTT AGAGGAGGTG TAGCTGGGAG TGTGGTCATT
CATGAAAGAC CTGTTTGCAG GGCAGTGTGT TTTGCTGGGG ACAGTAATGA
GCCTAGATCG TAGTGCCATC CCAAGAGAGT GCTTGGTGGC AAAAAGAGCC
CTAGCAGCTT GTGGCAGTTG CCTCATATTT GAAGAATACT AAGAGGTCCC
CCGAATAACT CAGGGCTAGT GTTGATCAATT GCATGTGGAG AGAATCCAAG
CCTCCTATCT AGGGTCTACA AAAGTAACCA ATGCCAGTC TTTGGGGGAA

FIG. 1-9

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+4990 AGCAAAACCA GAAAGCGATG ATAGCAGGAC CTGTTTATTT TCATTAAGTC
ATGGCATTTT CAGAGACTTT GCTCCCCCTA TTCTCAGACA CAAAGCCCAC
TTAAGATCTC CCTCTGGAGA CTGCTGGGAA CATTTCTTAA GTTCTGAAAA
AACCCTGGAG TGATTGGGCA CAGACGATCC TGCACTTCA TGTGAGTGCT
AAGCTCTTTG GGTGATGACT CAGTGGGTCA CATTGTTTTA TTCATATTGA
CTACCTTCCG TTTGCTTTGC GGAGAATGGA AGCTATAGAA GTCTGTTTGG
TGTGGCCCTC ACAAGGCACT GTGAGCTTCT TCTCTCTGTG TGCTAACTTC
TTACTCTCCC TTGCTTATAC CCACATAGGG ACTCTGGCTT TGTGCTGTT
CTTCAATGCT TCAGATGTGC CCTGGGTCCT GTCTGTCTT CACACTTAQT
GATGCTGCCT GGAATGCTAT TCCTCCCAAT GTGCATAGGG CCAGCTCGGT
CCAAATCCTC TCTTTTCTTT GCCTCTTTTA TATTTTCCTT CACAGTATCA
AATCAACCACA GTTTATGCAA CAAACTGAAA CTTTAAATTT GTCTGTCTCC
TTATATTAGT GATAGGTTCC AGAAAGGCAC TGATTTTTTT TCTTCCCTGG
TGTACACTGG GCAACTACTC TACCCTGAG CGTGATATCC TTGGTCCCTT
AAAAGTTATC CTCTGTCTTT AATAATGCTT AGCAATCATA TTTGCTTAAA
ATATTTATTG AATGACTGCA GGAATGAATG AATGAATGAG CTAACAGAAA
ACTCATGACC ATGTGGGTGA TTTCCGAAAC AGAGTGTGAG ATCTTTGGTG
GCATGTCCTT GTAGACTGTC TGCCACCAGT ATCTATCATC TTGAAGGTGA
CTATTGAGTA GTTTATATGC ATGTGAAAAA CCAAACCTTC TATTCTCTTA
CTCATAGCCT CTCTTAATCA TAGCCCTGTG GCATGGAGTG TACCATTGAT
+5990 ATCTTCCTGG AATACTTTTT CAGGGGACAG CGGGACCTGG ACTGGCTTTG
GCCCAATGCT CAGCGTGATT CTGAGGAAAG GGTATTGGTG ACTGAATGCG
GCGGTGGTGA CAGTATCTTC TGCAAAACAC TCACCATTCC CAGGGTGGTT
GGAAATGATA CTGGAGCCTA CAAGTGCTCG TACCGGGACG TCGAC (SEQ ID NO: 1)

FIG. 1-10

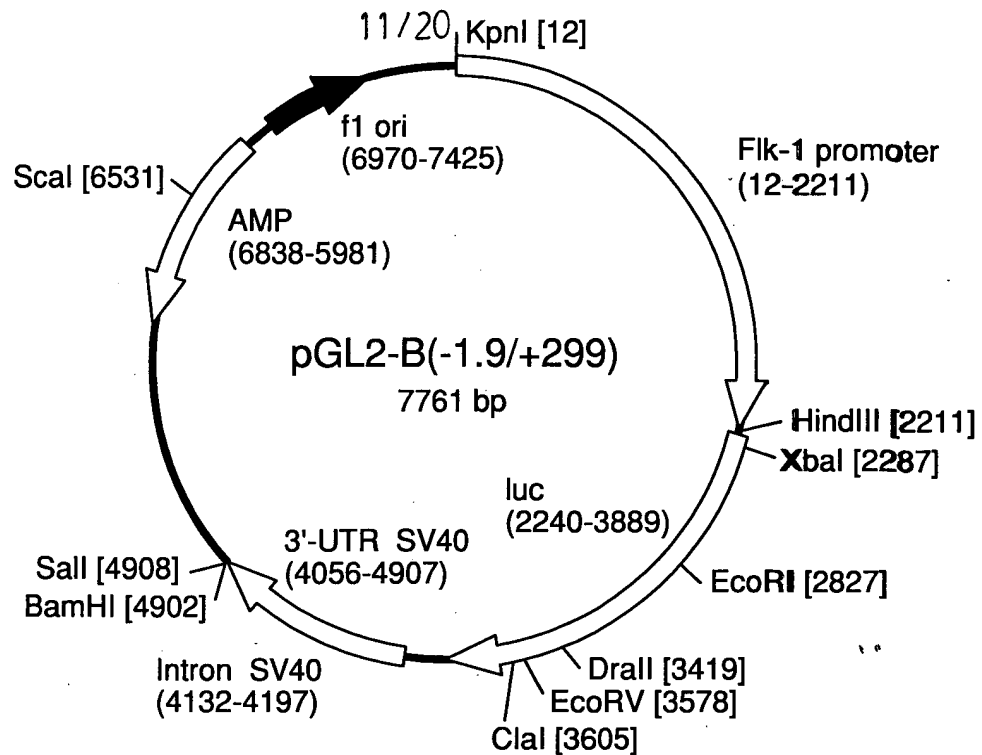


FIG. 2

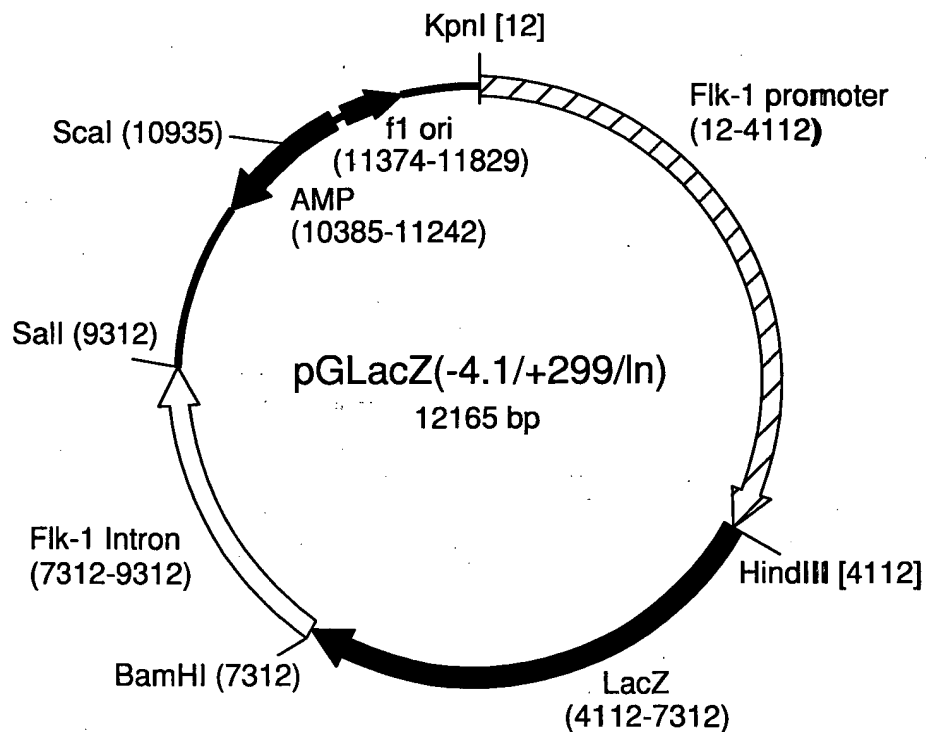


FIG. 3

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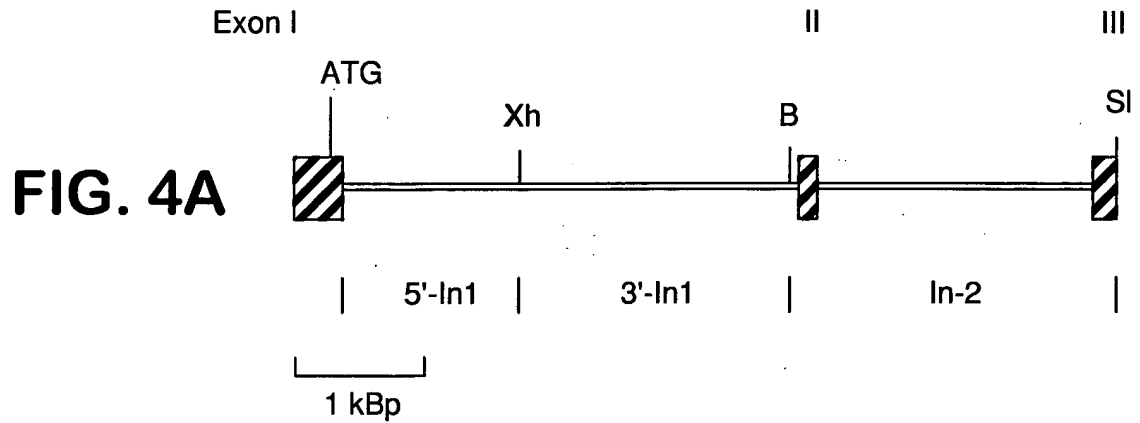


FIG. 4B

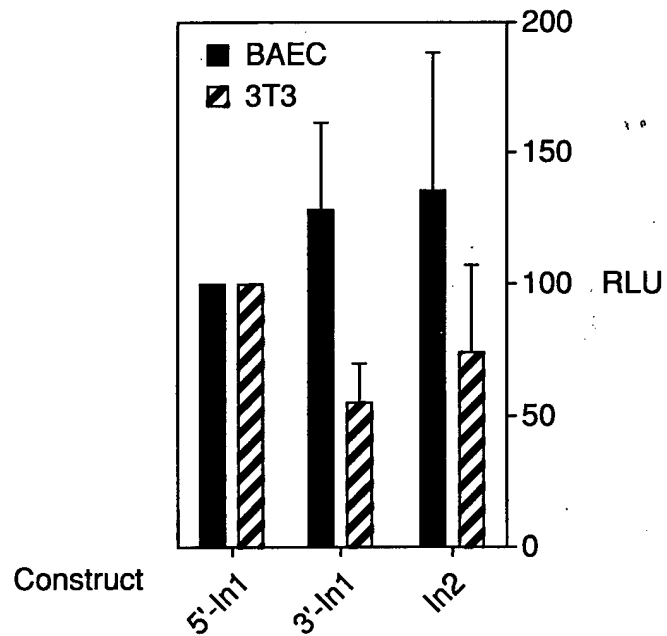


FIG. 4C

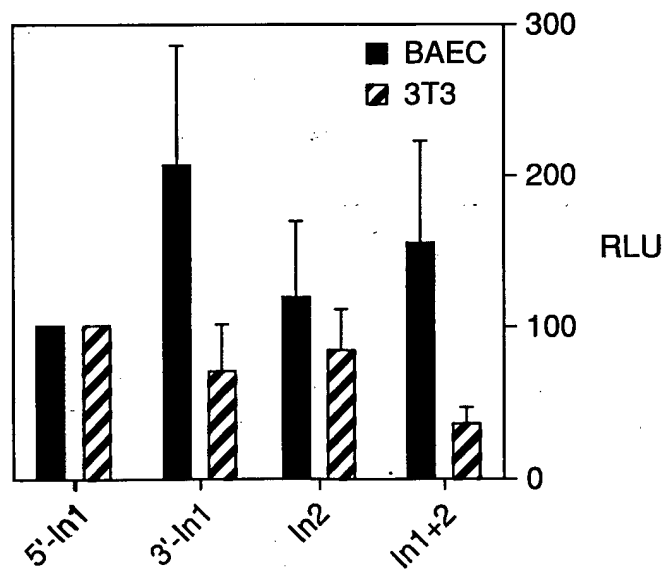




FIG. 5

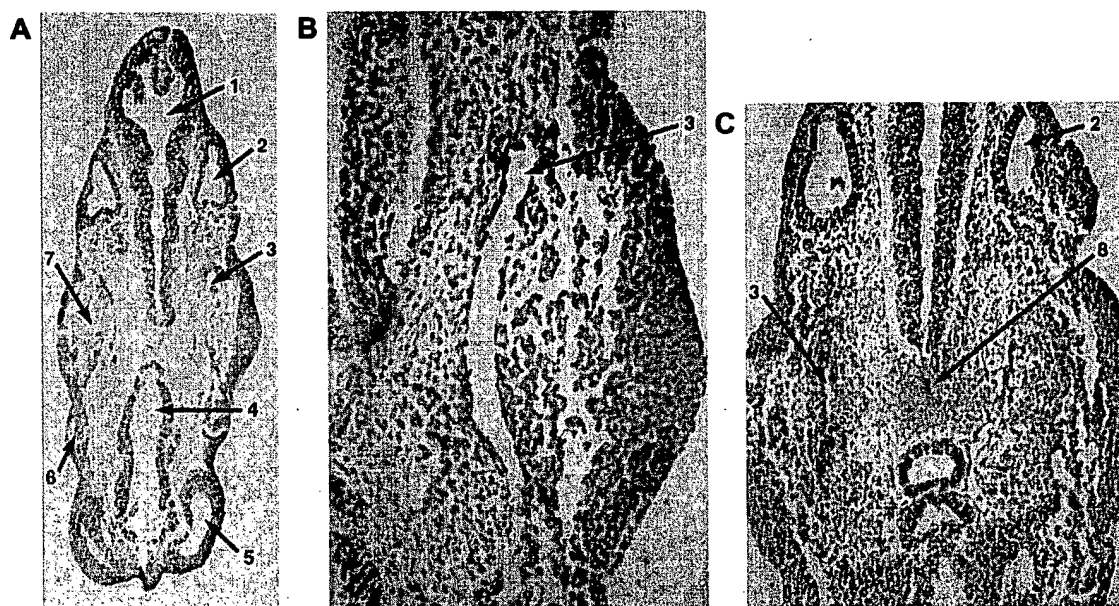


FIG. 6

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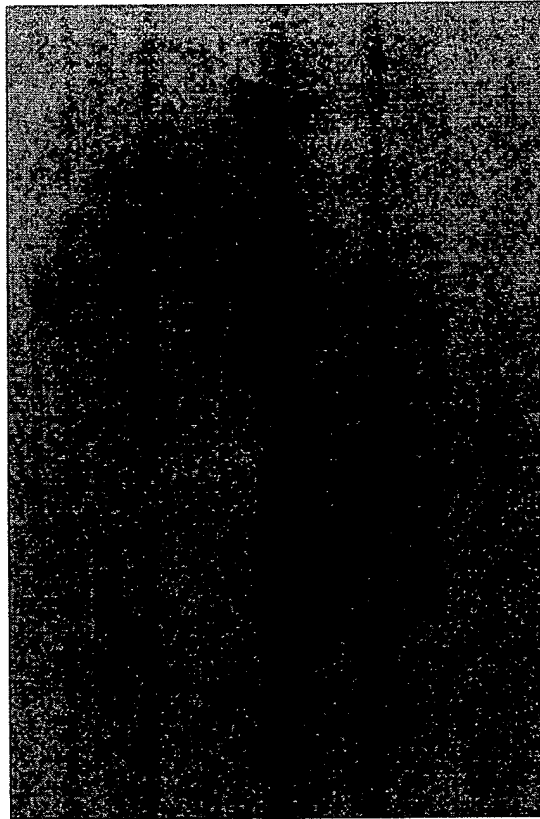


FIG. 7



FIG. 8

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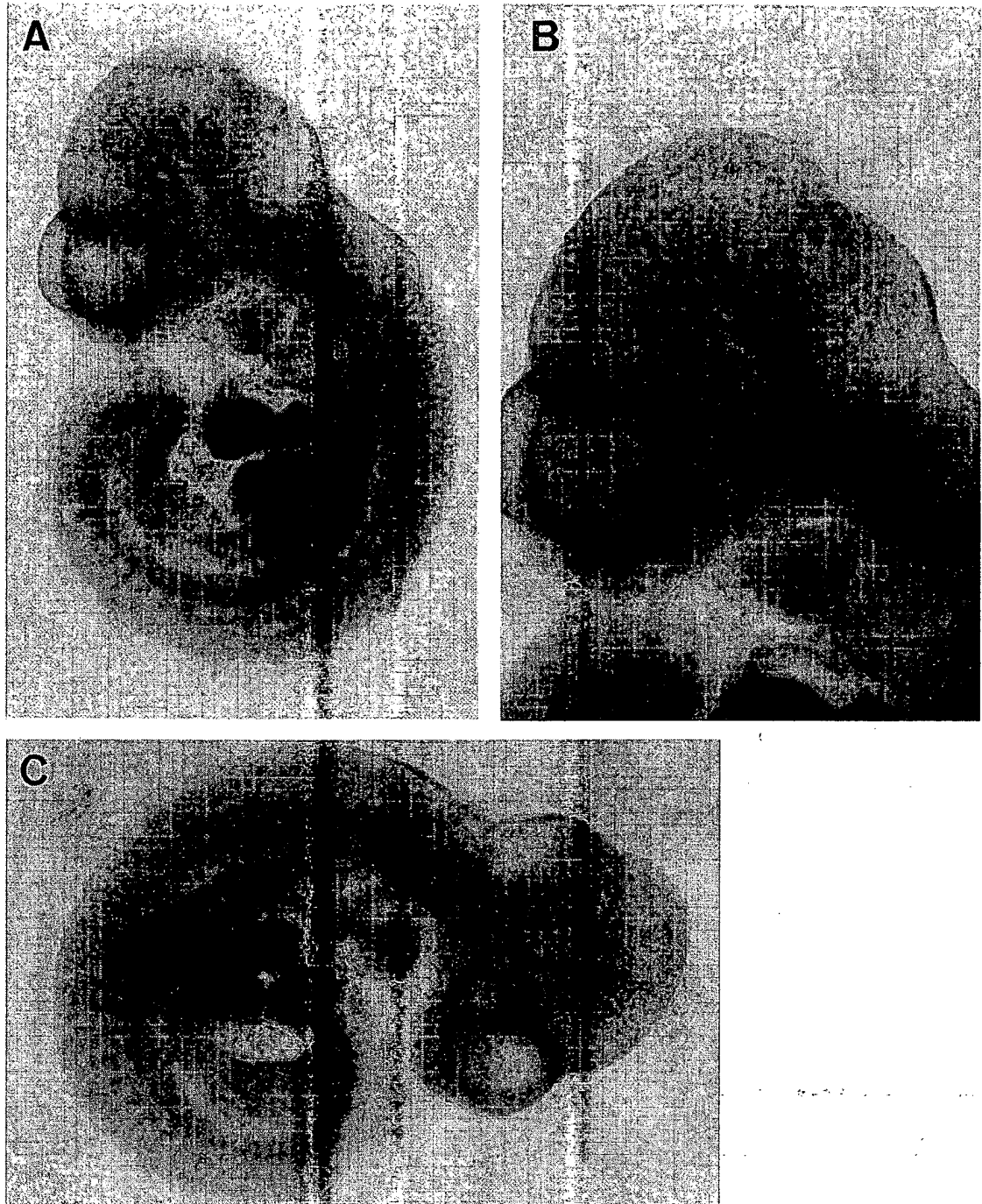


FIG. 9

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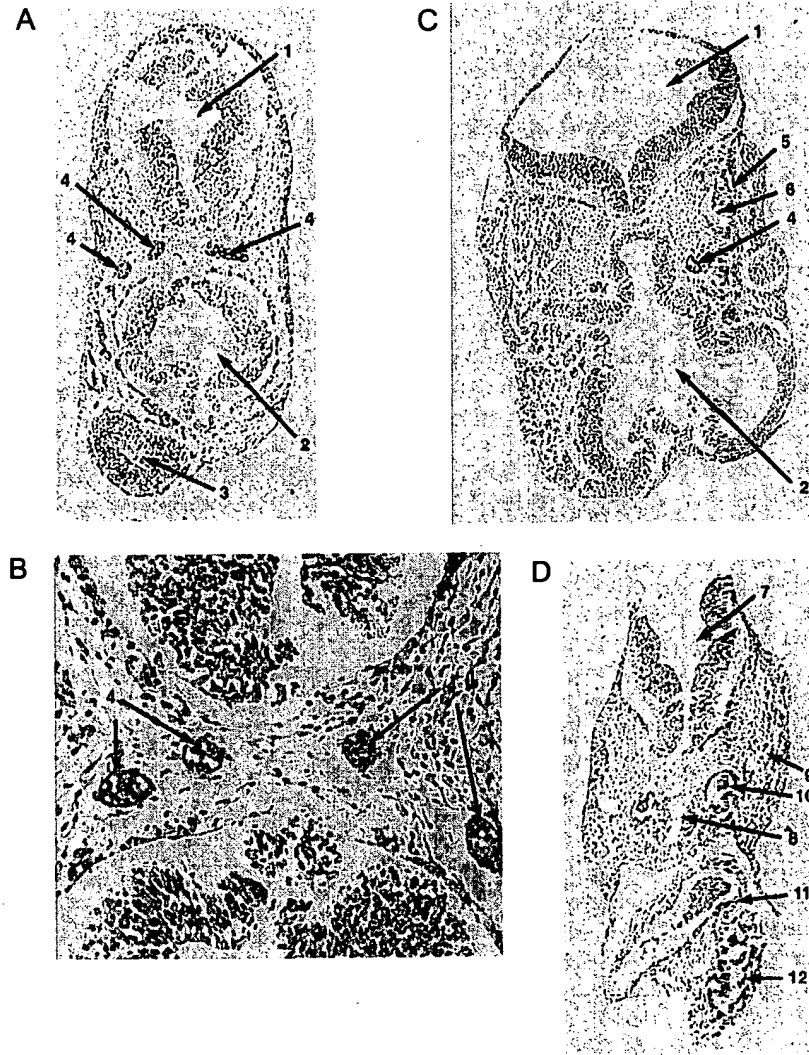


FIG. 10

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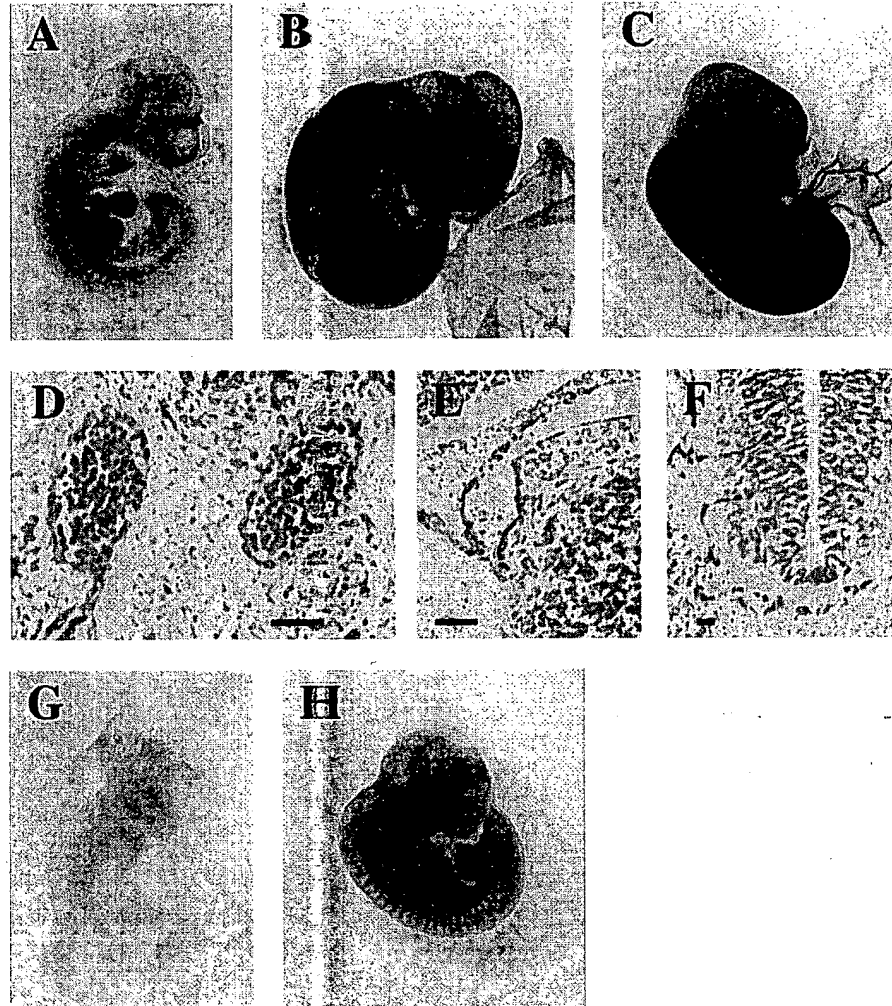


FIG. 11

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GATA PEA3

AAATGTGCTGTCTTTAGAAAGCCACTGCCTCAGCTTCTGCAGCTCAGATACCAAAGGAAGTCTGGT 65

GATA AP1

ACACAGCATGATAAAAGACAATGGGACGGGGTCACAGTGGCTCCCGTCCCTTTCAGGGGTATGGA 130

NFkB AP1

GACGAGCTGTAGAGAGATGTCTCCAAGGAGTTTTCATTAATCAGCAATTTAGTCAGATCTGTCCA 195

STAT SCL/TAL-1

TCCTATGCTTTACAAGAAATGTTCAGTGGGCTGAGATCATCAGATGGAGGTTCATCGGGTTTCA 260

Ets-1 GATA Ets-1

TGTCCTGATCCTTTTGTAAAGACCTTGAAGTTGGCAACGCAGGAAAACAGGAACTCCACCTGGT 325

SCL/TAL-1 Ets-1

GCCGTGAATTGCAGAGCTGTTGTGTTGGTTTGTGACCATCTGCCATTCTTCCCTGTATGACAGA 390

GCTTGTGAACCTTAACTGGGACTGGGGCAAAGTCAATCCACCTTTATACAATGAATTGCTGAAG 455

AGGCCTTTTAAACTTGGAGTGTGCATGTGTTTATGGAAGGGCTTTCCTATTGGATC 511

FIG. 12

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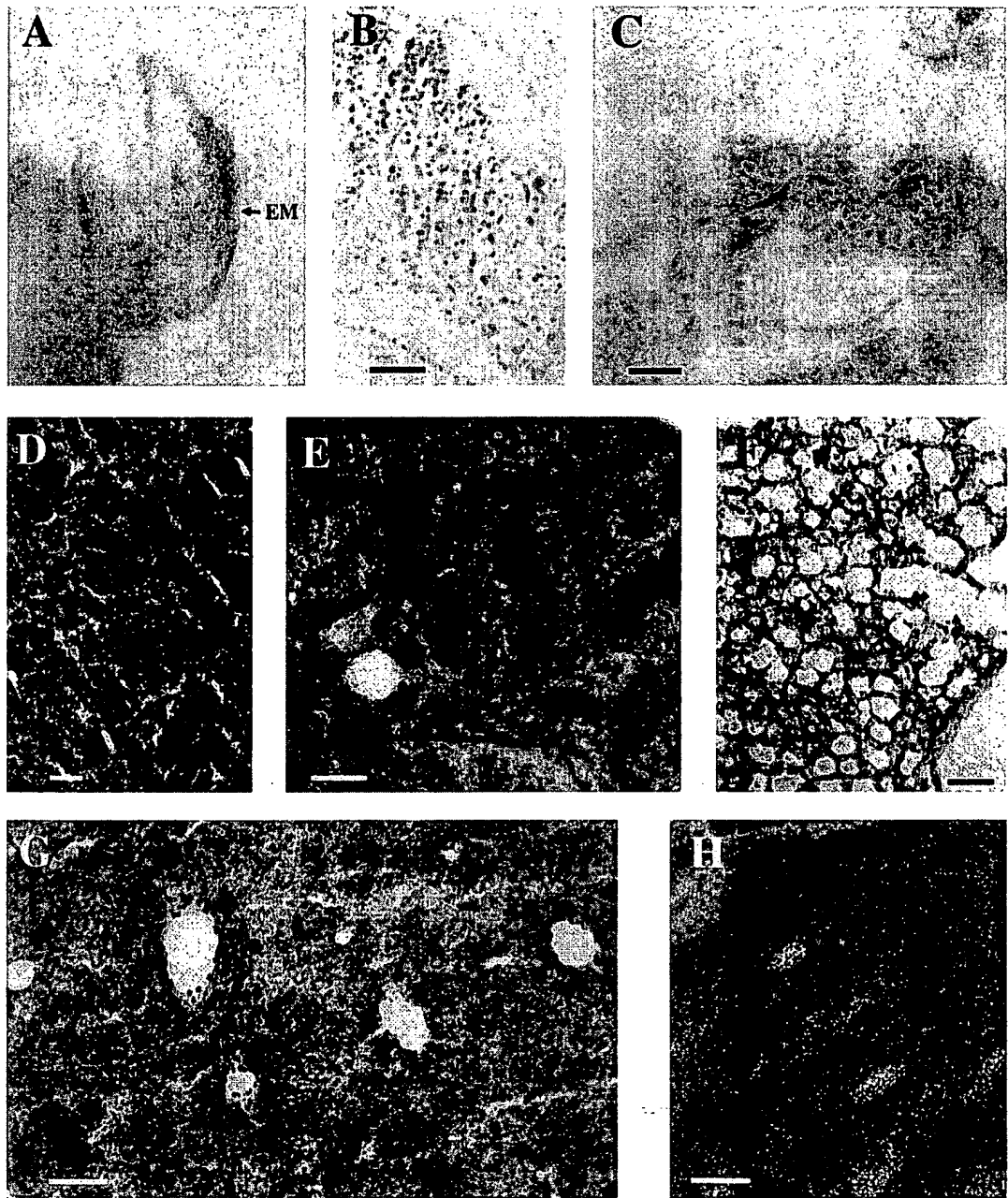


FIG. 13

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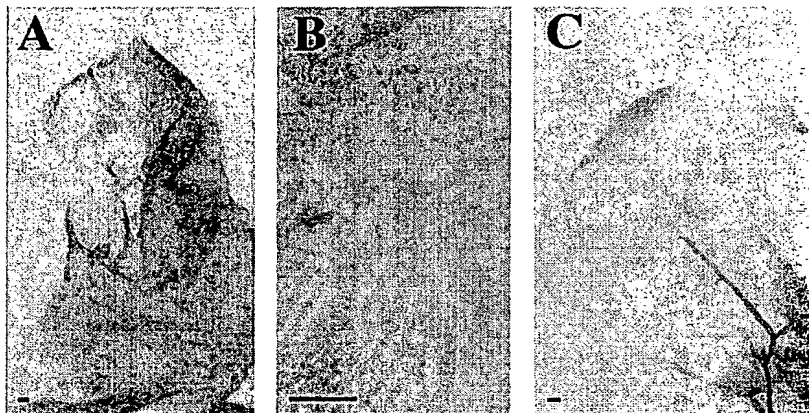


FIG. 14

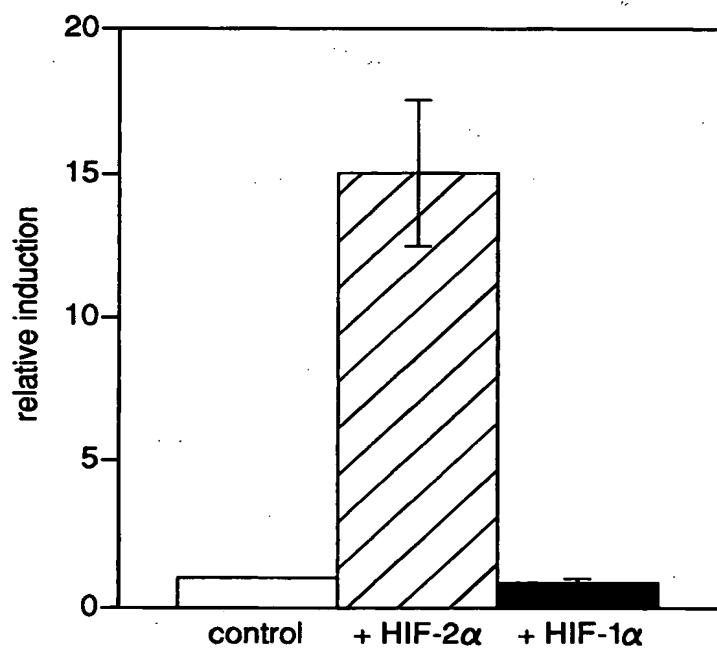


FIG. 15

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